



# E-RTG APS and yard automation

**Cavotec is a leading cleantech company that designs and delivers connection and electrification solutions to enable the decarbonization of ports and industrial applications.**

Based on our extensive experience and comprehensive range of crane electrification technologies, Cavotec has developed innovative RTG electrification, and automation solutions. Our technologies are a pre-requisite for the automation of terminals, and thereby maximising asset value.

#### **Automatic Plug-in System (APS)**

Cavotec's Automatic Plug-in System, (APS), automatically connects and disconnects E-RTGs to yard power supply, and to terminal control rooms with broadband fibre optic communication.

APS, the world-first automated connection system that features cable reel technologies, is suitable for low and medium voltage applications.

Key benefits:

#### ***Safer operations***

- Unmanned connection/disconnection

#### ***Improved productivity***

- Fast and safe lane change
- Reliable data and real time video transmission

#### ***Fast, safe lane transfer***

- Up to 1,000 metres of uninterrupted electrified travel distance via underground cables crossing channels

#### ***Wide supply voltage range***

- From 400V up to 7,200V



#### **Push Plate (PP)**

The PP is installed at the yard, hard-wired to the yard grid. It enables the connection to the E-RTG cable reel via a built-in socket.



#### **Mobile Turnover Anchor (TOA)**

The TOA is carried by the crane when not connected or positioned on PP when connected. It is wired to the RTG e-room and data network, via a built-in plug.



#### **Telescopic arm (ARM)**

The ARM is installed on the E-RTG sill beam. It performs automated connection and disconnection of the TOA on the PP.

**Yard supervision and yard automation**

Yard supervision and automation ensure supervision and control of yard equipment related to E-RTG operations. It is based on standard yard communication devices, and on Cavotec SCADA, specifically designed for terminals operating E-RTG with APS.

**Key benefits:**

*Safer operations*

- No operators required on the yard for supervision
- Fail-safe protocol for commanding devices operating manned vehicles

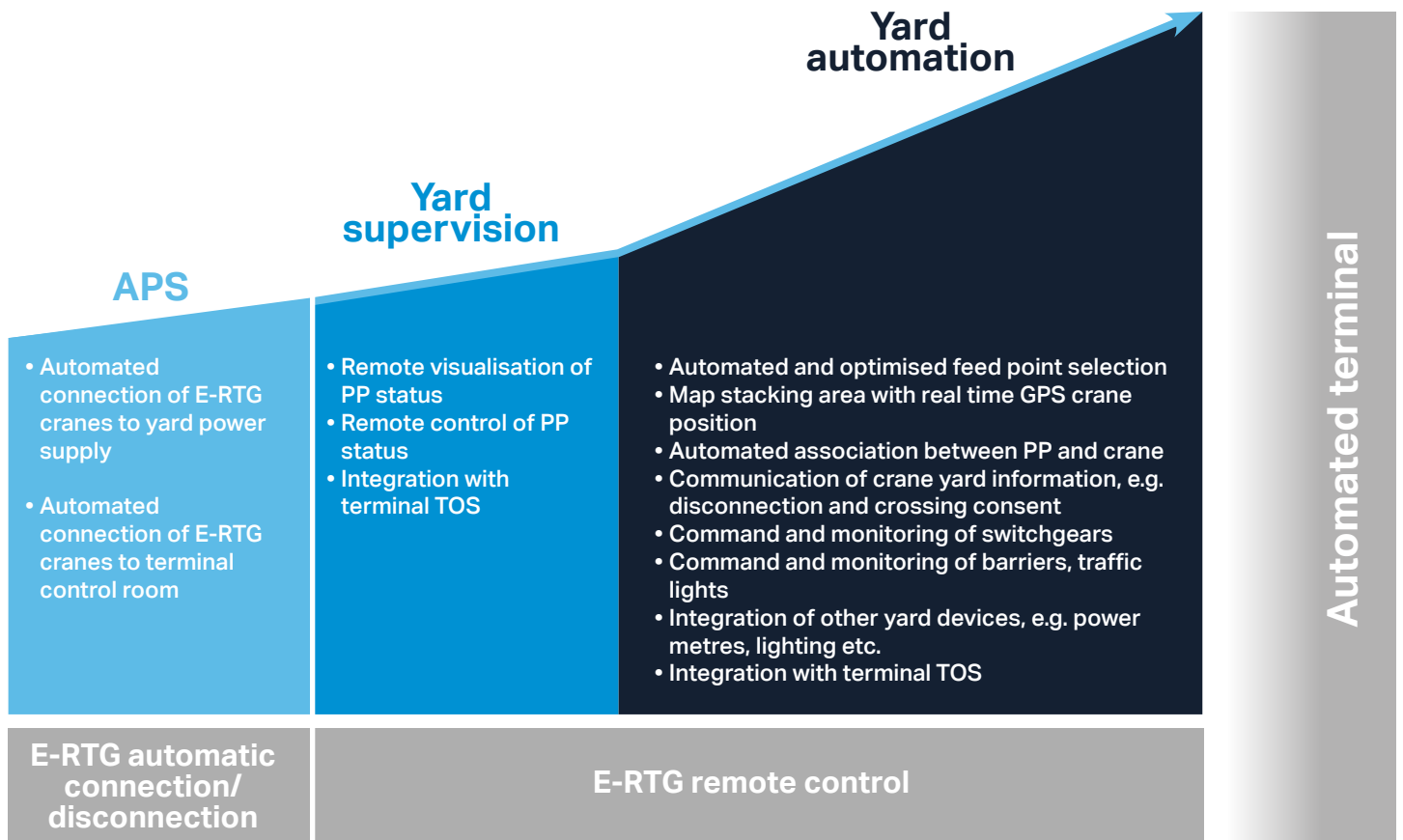
*Optimised operations*

- Faster crane deployment
- Co-ordination of all yard devices from Cavotec SCADA

*Continuous operations*

- Predictive maintenance on yard devices
- Full redundancy of the control system

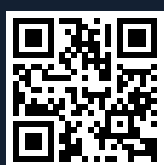
From remote visualisation of PP status, to full yard equipment automation, Cavotec solutions can be customised to meet specific terminal needs, thereby increasing efficiency and safety. Cavotec provides seamless integration with existing terminal IT architecture.



# Have Cavotec contact you!

To discuss your specific requirements  
for making your operations safer, more  
efficient and more sustainable.

Simply book a call at  
[www.cavotec.com/contact-us](http://www.cavotec.com/contact-us)



Disclaimer: specifications are subject to change  
without notice.

*Issued November 2021.*